

Patent claims

1. Method for allocating radio technical resources for data transmission in a radio communication network, in which resources allocated for a subscriber are jointly determined on a first interface between a station and a first network node and on a second interface between the first network node and a second network node, with a data rate and transmission characteristics requested by the subscriber being taken into account by the first interface, in which case a relationship between resources to be allocated at the first interface and resources to be allocated at the second interface is taken into account, and in which case allocations of other subscribers to resources which already exist are taken into account and the value to all subscribers is optimized.

2. Method according to claim 1,

- in which the first interface is embodied as a radio interface between a mobile station and a network-side radio station which forms the first network node,
- in which the subscriber, for transmission over the first interface, is allocated a coding scheme and one or more elements of packet data channels,
- in which the subscriber, for transmission over the second interface, is allocated one or more time slots, with a relationship existing between the number of time slots allocated at the second interface and the allocated coding scheme.

3. Method according to claim 2, in which the subscriber is allocated elements on at most as many packet data channels as corresponds to the number of the channels on which the station can simultaneously transmit or receive respectively.

4. Method in accordance with one of the claims 1 to 3,

- in which the quotient from the actual data rate and the data rate required by the subscriber is defined as the value to a subscriber,
 - in which the minimum of the quotients from the actual data rate and from the data rate required by the subscriber is defined as the value for all subscribers,
 - in which the value to all subscriber is optimized in the sense that the value is maximized.
5. Method according to claim 4,
- in which for a specific number of subscribers a minimum data rate is presepecified which is not to be undershot for data transmission from and to the subscriber,
 - in which the minimum data rate for this subscriber is taken into account as a peripheral condition for optimizing the value to all subscribers.
6. Method in accordance with one of the claims 1 to 5,
- in which a check is made for the subscriber as to the number of packet data channels between which the elements to be allocated are distributed,
 - in which for a not necessarily true subset of all combinations of contiguous packet data channels which correspond to the number determined, an allocation is investigated for the subscriber and the value to all subscribers is determined,
 - in which the subscriber is allocated the combination of contiguous packet data channels for which the greatest value to all subscribers is produced.